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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/082,563	02/23/2002	Masahiro Ishida	ADV A225.001AUS	3180

7590 02/07/2006  
MURAMATSU & ASSOCIATES  
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EXAMINER	
GHULAMALI, QUTBUDDIN	
ART UNIT	PAPER NUMBER
2637	

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/082,563	ISHIDA ET AL.	
	Examiner	Art Unit	
	Qutub Ghulamali	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 13, 14, 17-24 and 34-37 is/are rejected.
- 7) ☒ Claim(s) 9-12, 15, 16, 25-31 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

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### DETAILED ACTION

1. This Office Action is responsive to applicant's Remarks/Amendments filed on 11/28/2005.

#### *Response to Amendment*

2. The amendment filed 11/28/2005, is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material, to claims 1 and 17, which is not supported by the original disclosure is as follows: "Peak-to-peak value is estimated without actually measuring the peak-to-peak values of the clock signals under test" has no basis in the originally filed disclosure.

Applicant is required to cancel the new matter in the reply to this Office Action.

#### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-16 and 17-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The amended claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the

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claimed invention. In the summary section of the disclosure, page 1, lines 27-29, estimating is done on clock signals under test to determine if the peak-to-peak value exceeds a predetermined value in clock skew. Similarly on page 4, lines 20-23, the clock skew estimator is furnished with a waveform clipper for receiving the clock signals under test as inputs and extract the phase modulation components of the clock signals under test, without disclosing the amended claimed subject matter “without actually measuring the signal value”.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

nl 6. Claims 34 and 35<sup>37</sup> are rejected under 35 U.S.C. 103(a) as being unpatentable over Gutnik et al (USP 6,661,860) in view of Oleynik (USP 6,882,680).

Regarding claims 34 and 35, Gutnik discloses a probability estimating apparatus for peak-to-peak values in clock skews (jitter, shift) among a plurality of clock signals under test comprising:

a clock skew estimator (jitter estimation) for estimating clock skew sequences among the plurality of clock signals (SigA and SigB) under test (abstract; col. 5, lines 17-40); and  
a probability estimator for determining a generation probability of the peak-to-peak values in the clock skews among the plurality of signals under test based on the clock skew sequences from the clock skew estimator (col. 6, lines 43-60; col. 10, lines 25-44).

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Gutnik however, does not explicitly disclose a frequency multiplier for receiving and producing timing jitter (shifts) sequences.

Oleynik in a similar field of endeavor discloses a frequency multiplier for receiving and producing timing jitter (shifts) sequences (col. 10, lines 42-50, 30-41). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a frequency multiplier as taught by Oleynik in the circuit of Gutnik because signals produced by the multiplier can maintain synchronization between signals received and transmitted in a better way.

As per claims 36 and 37, the steps claimed as method in nothing more than restating the function of the specific components of the apparatus as claimed above and therefore, it would have been obvious to a person of ordinary skill in the art to follow the methods step, considering the aforementioned rejection for the apparatus claims 34-35.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

#### **US Patents:**

Wong (USP 5402443) shows a device for measuring the jitter of a recovered clock signal.

Watanabe (USP 4542514) discloses a method of measuring quality of a signal received by a receiver.

Soma et al (USP 6775321) discloses an apparatus for measuring a jitter sequence.

Turker (USP 6640193) discloses a Method and system for measuring jitter

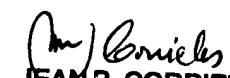
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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qutub Ghulamali whose telephone number is (571) 272-3014. The examiner can normally be reached on Monday-Friday from 7:00AM - 4:30PM 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

QG.  
February 1, 2006.

  
**JEAN B. CORRIELUS**  
**PRIMARY EXAMINER**  
2-3-06